

**FIG. 3**

50

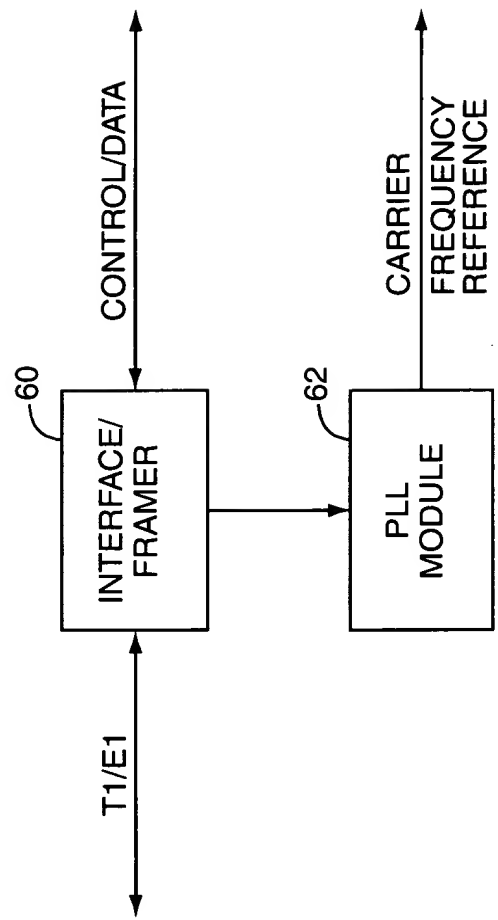


FIG. 4

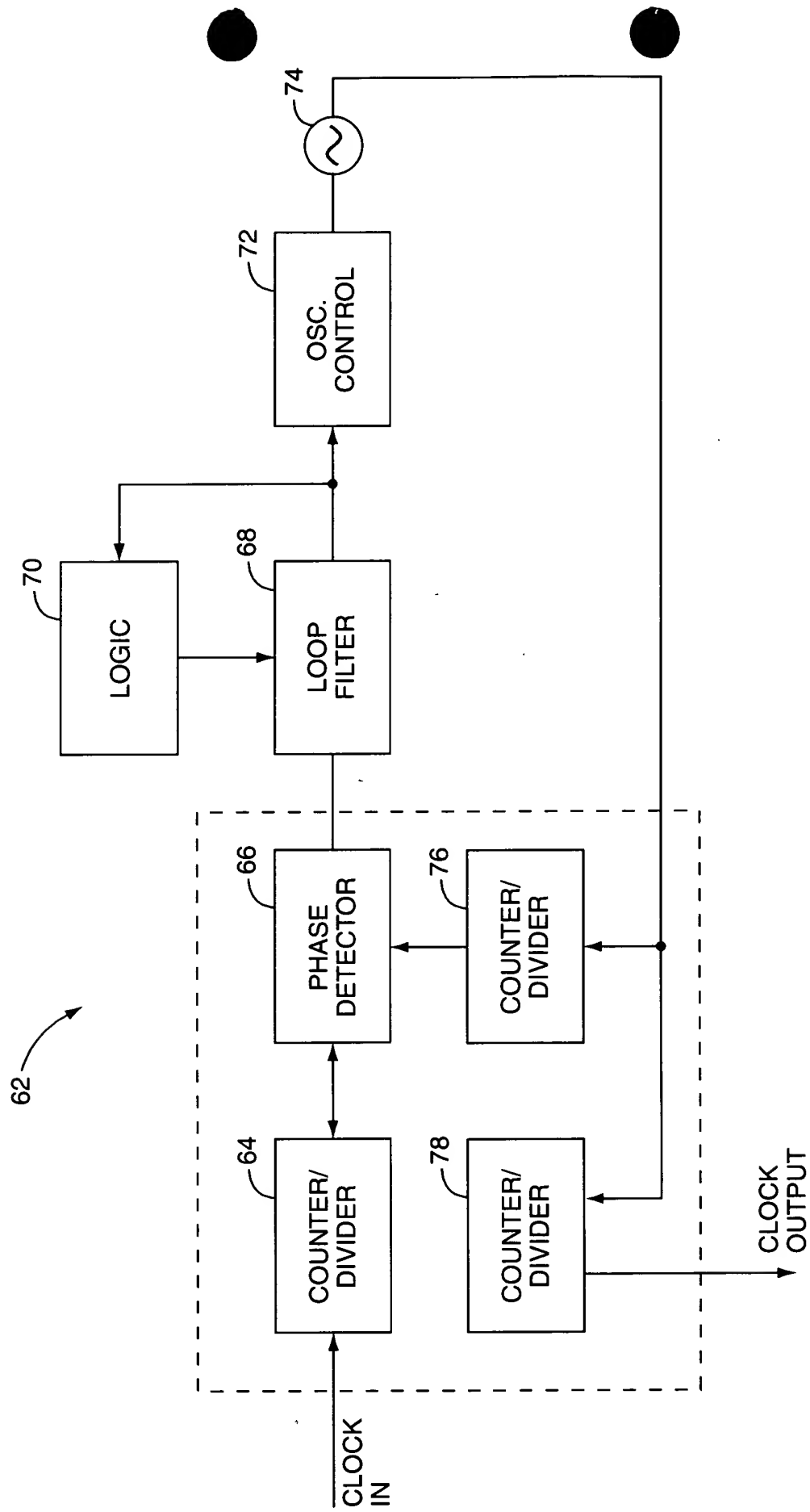


FIG. 5

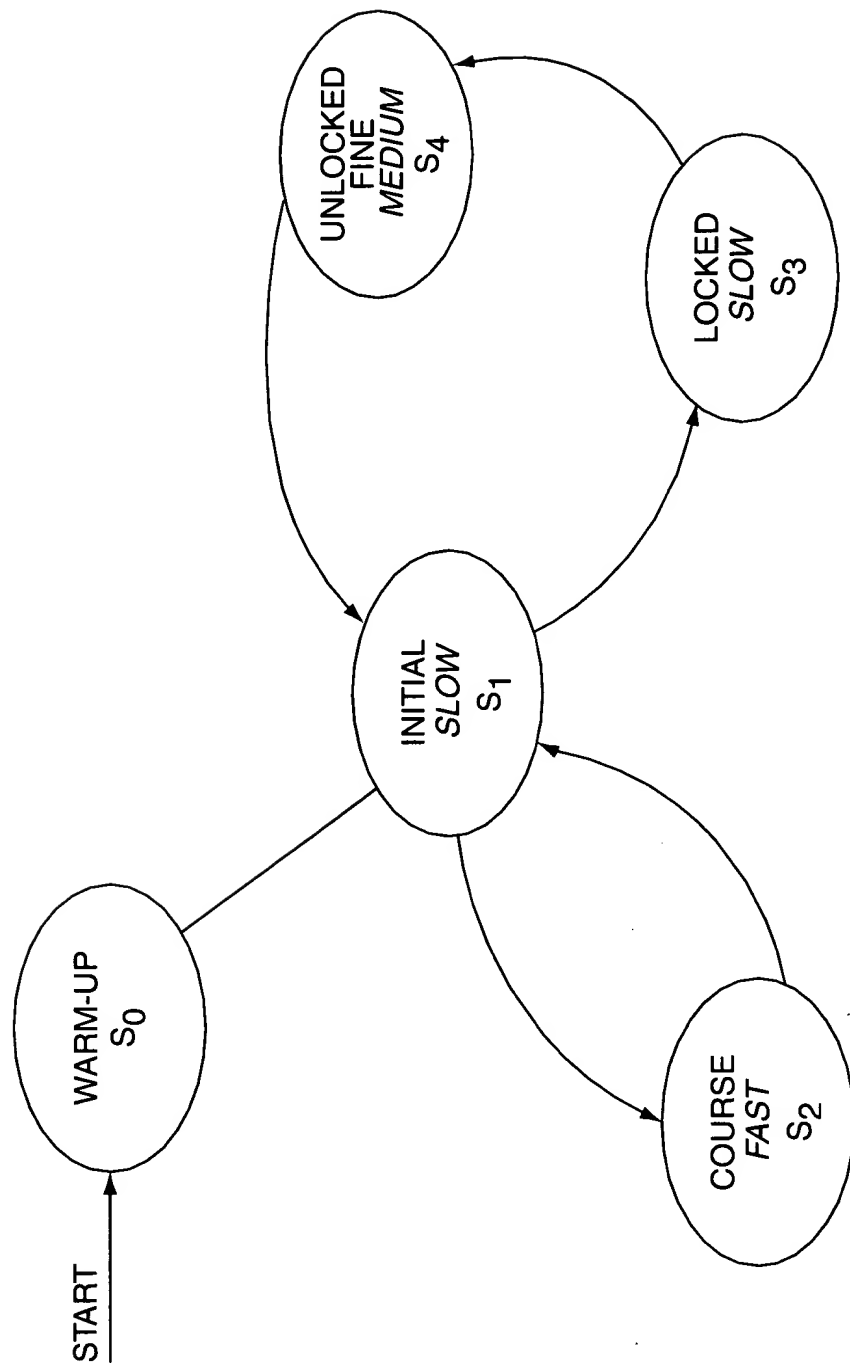
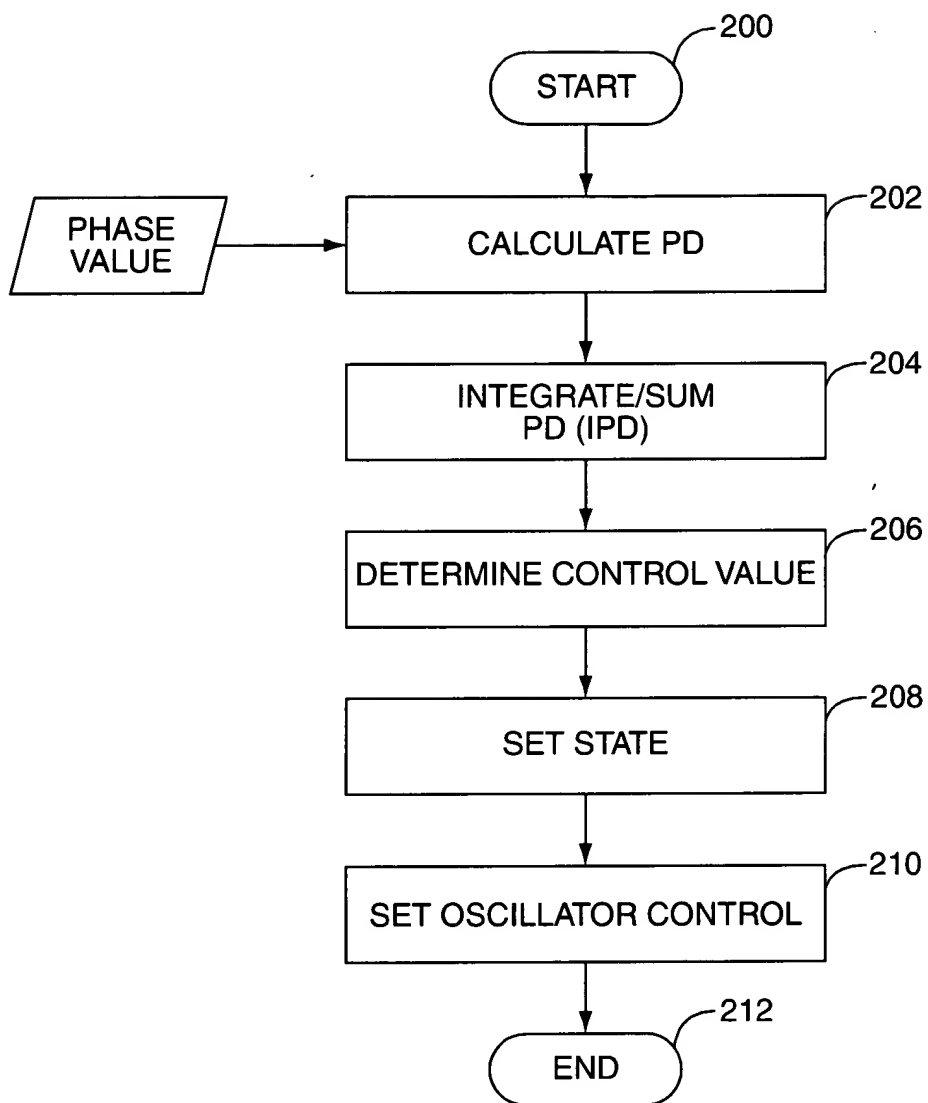


FIG. 6

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**FIG. 7**

```

graph TD
    Start(( )) --> 220[220 CALCULATE CV SUM]
    220 --> 222{222 TIME FOR AVG?}
    222 -- NO --> 224a([224 RETURN])
    222 -- YES --> 226[226 CALCULATE CVAVG AND CVΔAVG]
    226 --> 228[228 CALCULATE CVfΔAVG]
    228 --> 230{230 RESULT AVAILABLE?}
    230 -- NO --> 224b([224 RETURN])
    230 -- YES --> 234[234 ADAPT CV]
    234 --> 236{236 ADAPT OCCURRED?}
    236 -- YES --> 224c([224 RETURN])
    236 -- NO --> 238[238 PERFORM PEAK SEARCH]
    238 --> 240([240 CONTINUE])

```

**FIG. 8A**

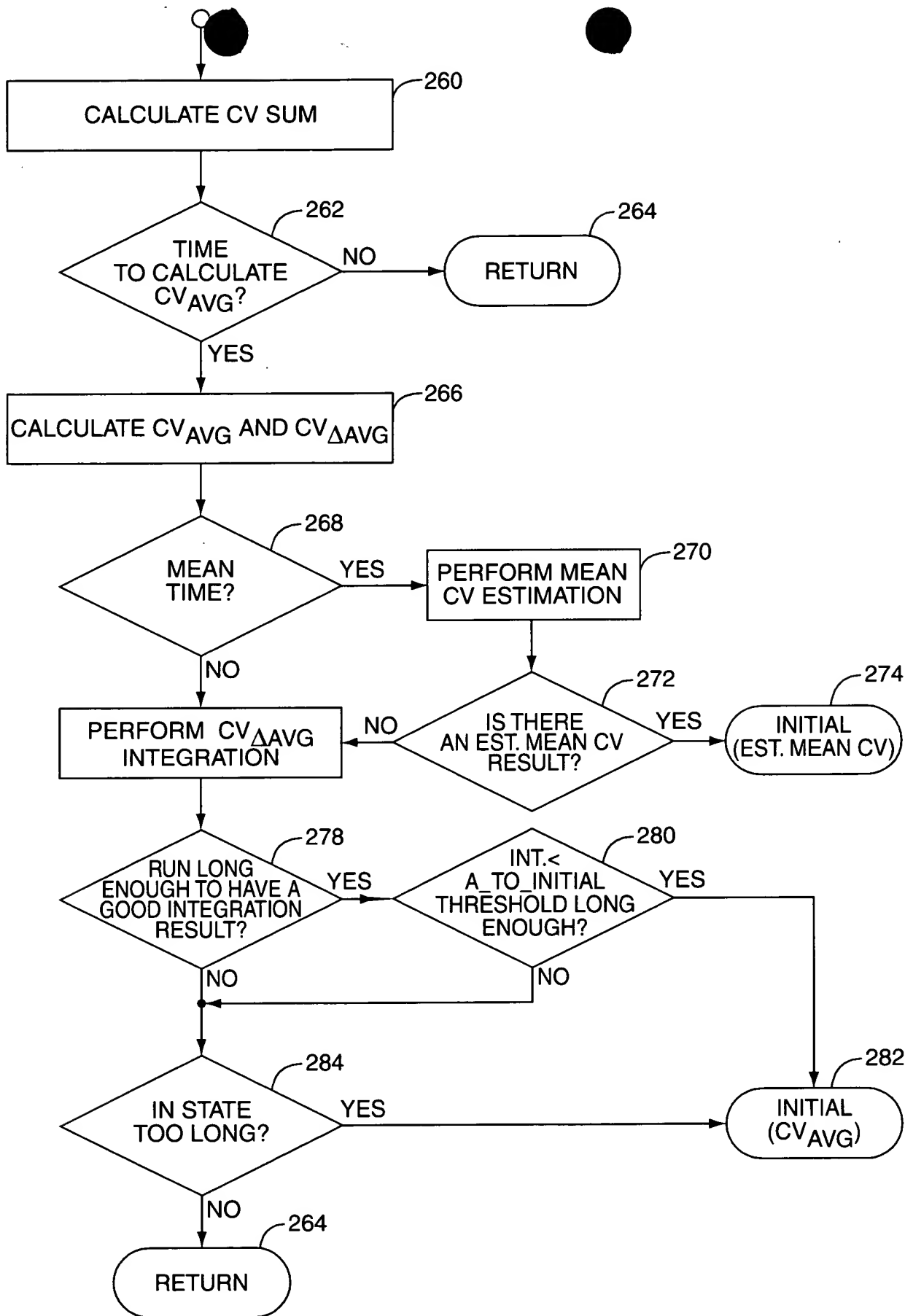


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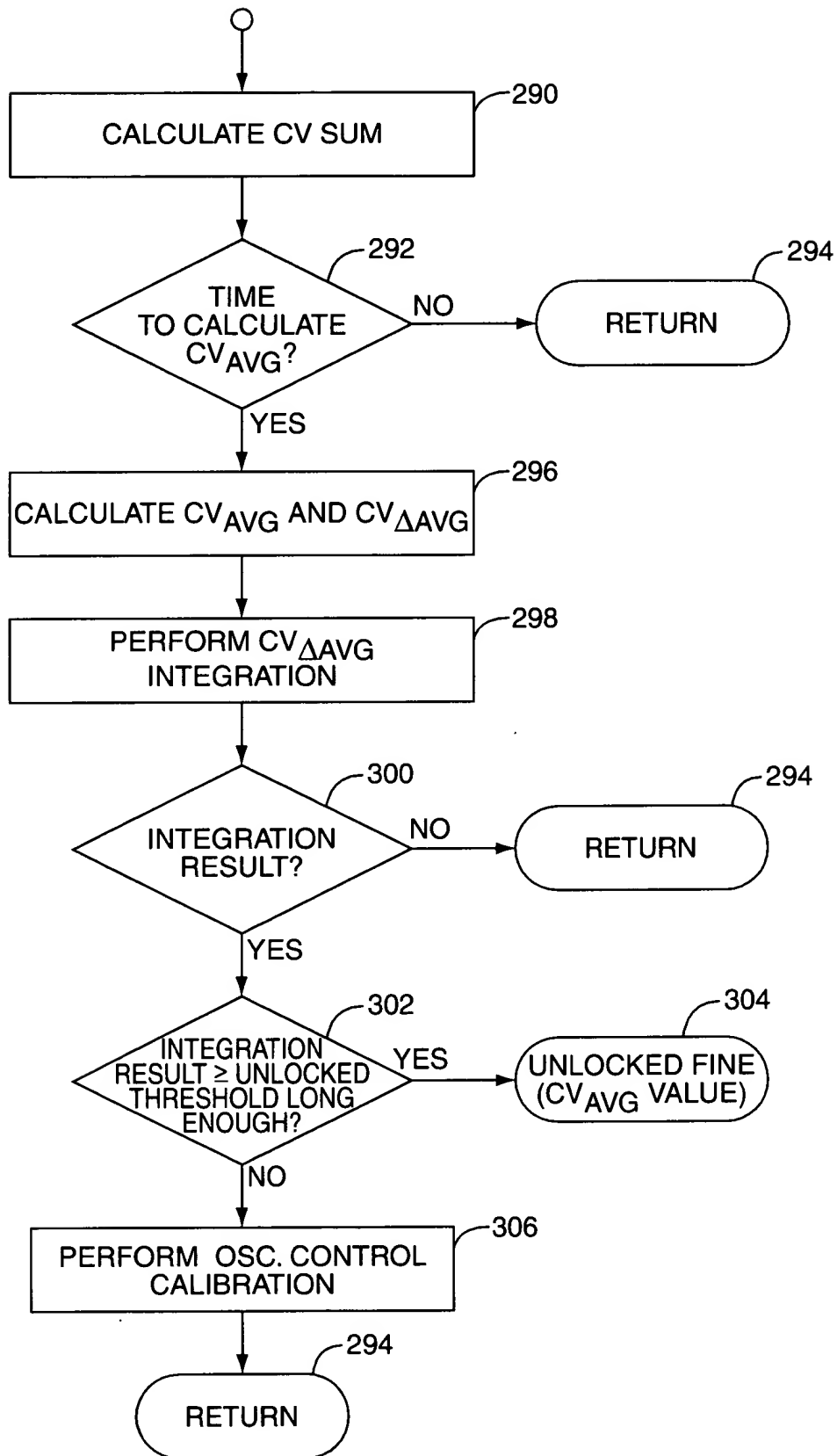
graph TD
    240([CONTINUE]) --> 242{PEAK FOUND?}
    242 -- YES --> 244{ $|PK_{\Delta SUM}| \leq$   
LOCK THRESHOLD?}
    242 -- NO --> 248{IS INT.  
RESULT  $\leq$  LOCK  
THRESHOLD?}
    244 -- YES --> 246([LOCKED  
WITH CV AVG])
    244 -- NO --> 248
    248 -- YES --> 250([LOCKED  
WITH CV AVG])
    248 -- NO --> 252{IS INT.  
RESULT  $>$  COARSE  
THRESHOLD?}
    252 -- YES --> 254([COARSE  
WITH CV AVG])
    252 -- NO --> 224([RETURN])

```

**FIG. 8B**

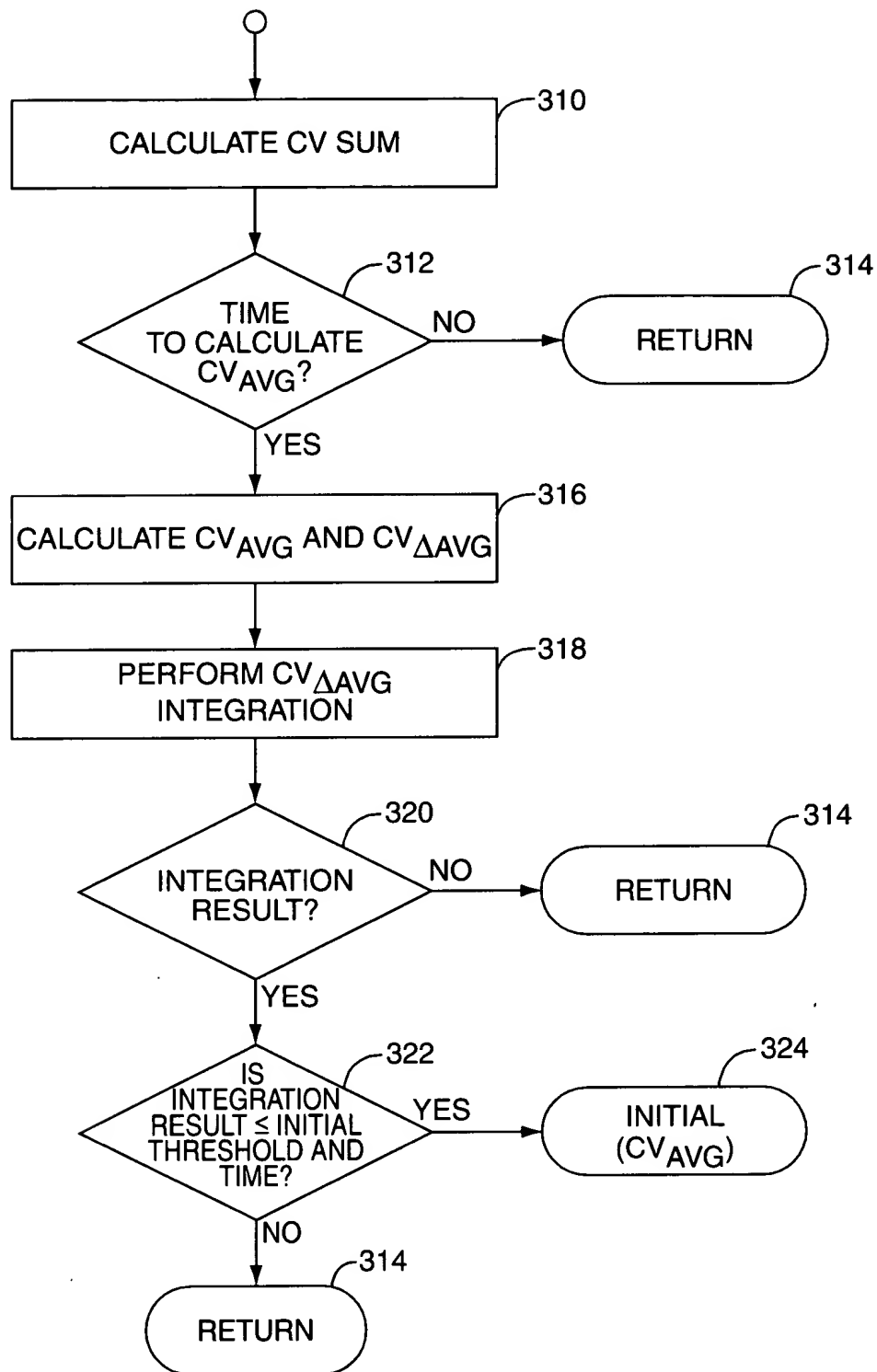


**FIG. 9**



**FIG. 10**

1. The first step is to identify the problem. This involves understanding the current situation and what needs to be changed.



**FIG. 11**

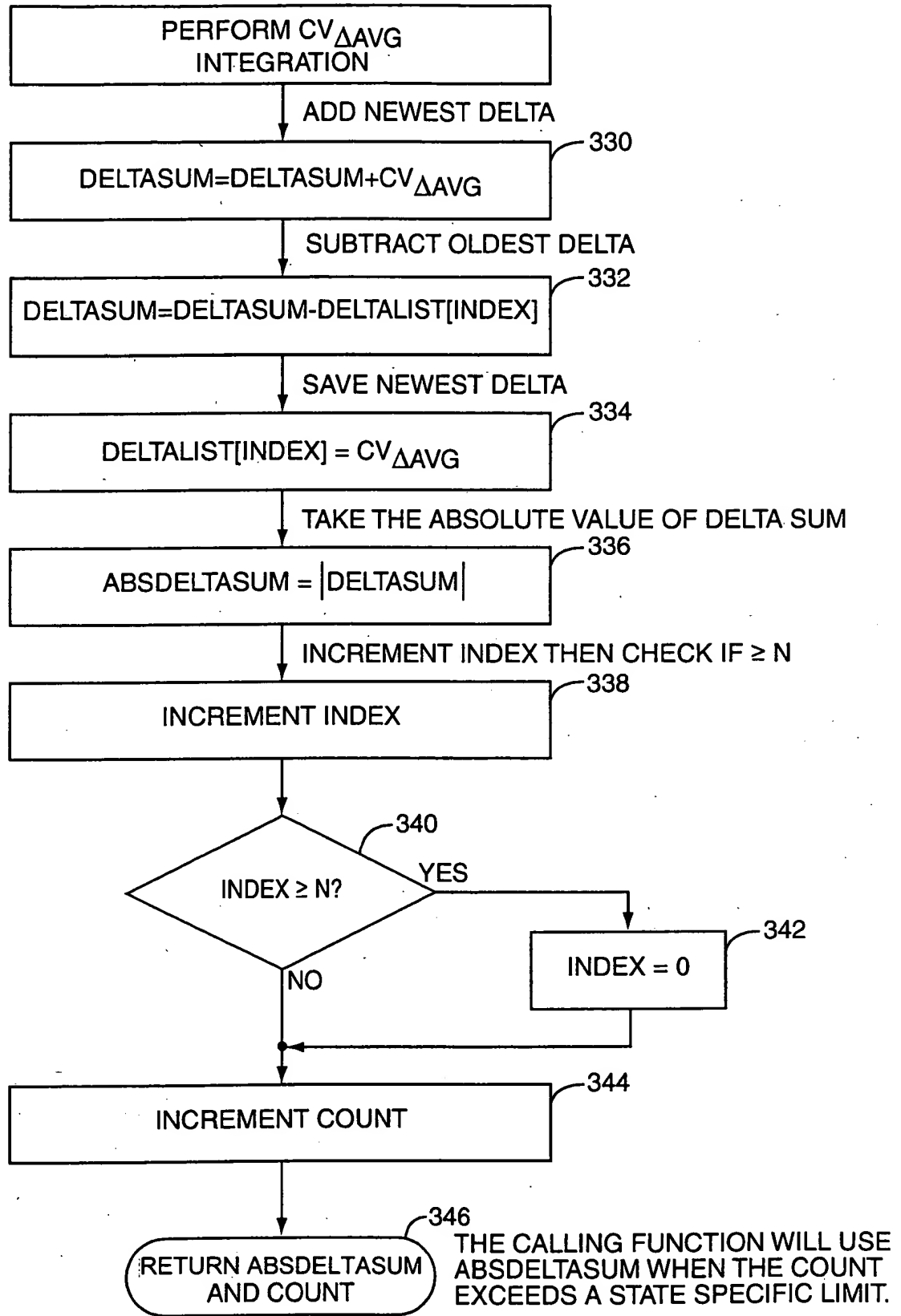
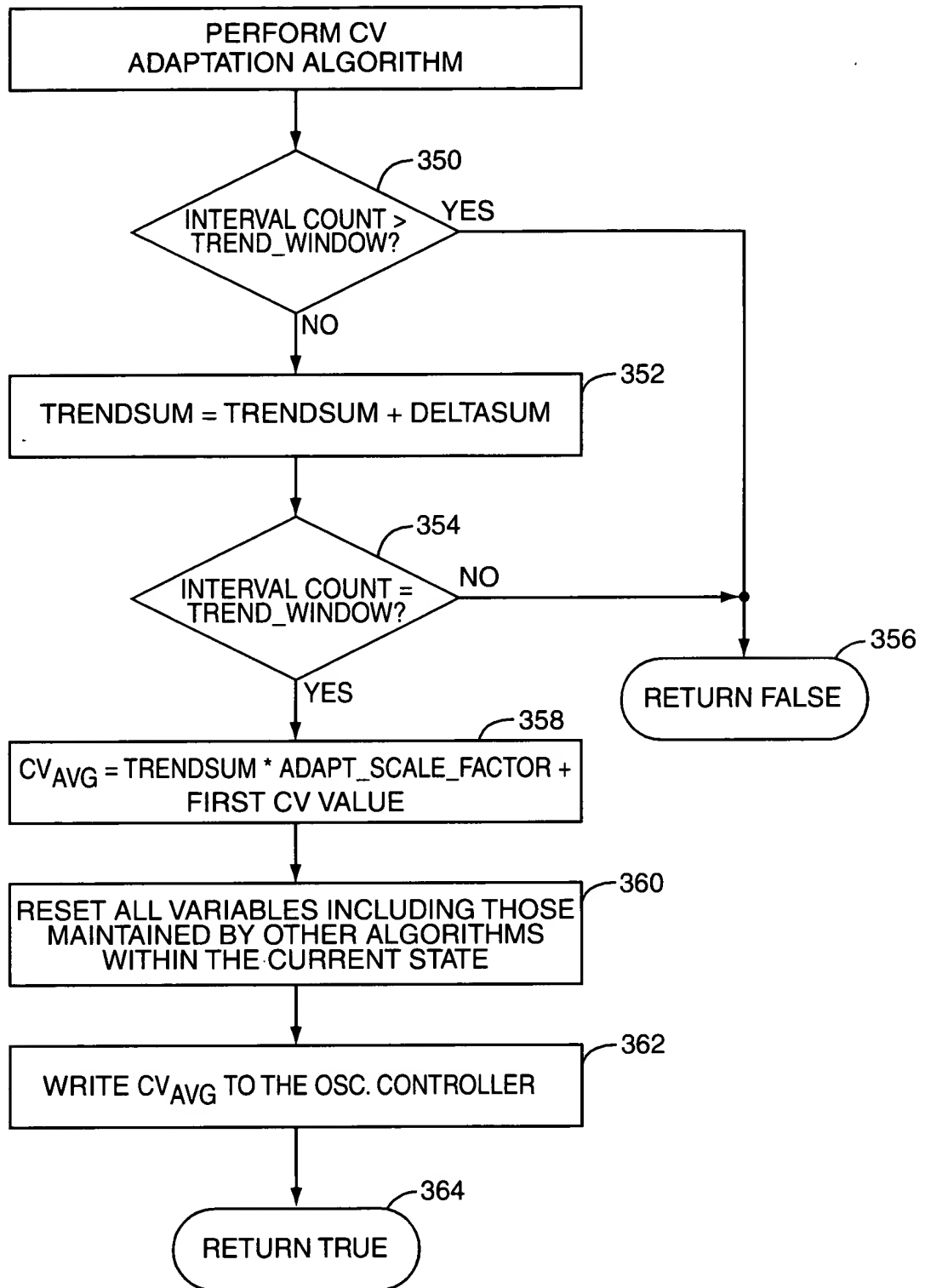


FIG. 12



**FIG. 13**

```

graph TD
    Start([START]) --> Process1[PERFORM CV<sub>AVG</sub> PEAK SEARCH]
    Process1 --> Decision1{PEAK PRESENT? 370}
    Decision1 -- NO --> Process2[RETURN FALSE 372]
    Decision1 -- YES --> Decision2{FIRST PEAK? 374}
    Decision2 -- YES --> Process3[PEAK = LAST CV<sub>AVG</sub> INCREMENT PEAKCOUNT 376]
    Decision2 -- NO --> Process4[INCREMENT PEAKCOUNT 378]
    Process3 --> Process5[PEAK = LAST CV<sub>AVG</sub> INCREMENT PEAKCOUNT 376]
    Process4 --> Process5
    Process5 --> Process6[LASTPEAK = PEAK PEAK = LAST CV<sub>AVG</sub> 380]
    Process6 --> Process7[PEAKDELTA=PEAK-LASTPEAK 382]
    Process7 --> Process8[PEAKDELTASUM = PEAKDELTASUM + PEAKDELTA  
PEAKDELTASUM = PEAKDELTASUM - PEAKDELTALIST[INDEX]  
PEAKDELTALIST[INDEX] = PEAKDELTA 384]
    Process8 --> Process9[INCREMENT INDEX (IF INDEX > N, THEN SET INDEX = 0) 386]
    Process9 --> Decision3{PEAKCOUNT > THRESHOLD? 388}
    Decision3 -- NO --> Process10[RETURN FALSE 390]
    Decision3 -- YES --> Process11[ABSPEAKDELTASUM= |PEAKDELTASUM| 392]
    Process11 --> Process12[RETURN TRUE 394]

```

**FIG. 14**

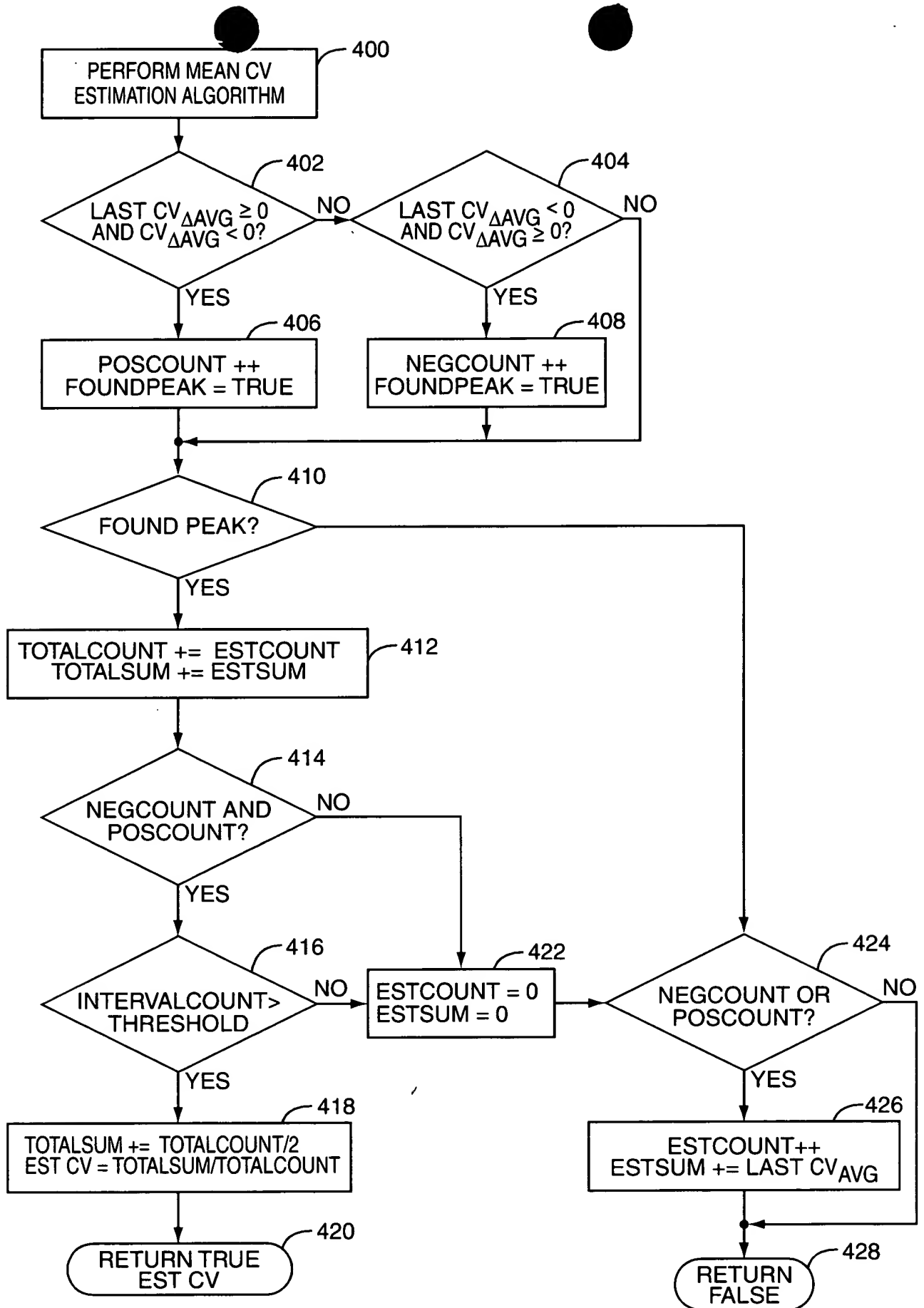


FIG. 15